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Contributions to the Statistics of Sugar Produced within the British Dominions in India. By LIEUT.-COLONEL W. H. SYKES, F.R.S.

[Read before the Statistical Section of the British Association, at Birmingham, September, 1849.]

THE Chamber of Commerce in Bengal, in September 1846, applied to the Government of India to procure for them a Statistical Return of lands cultivated in Bengal and the north-western provinces for the growth of Sugar-cane or Date trees, for the production of Goor or Sugar, desiring at the same time to know the probable consumption in each district. The object of the Chamber in requesting this information was to ascertain the capabilities of the soil in India, for extending the cultivation of sugar at a cost which would enable it to compete in the home markets with the foreign slave and free labour sugar, the prohibitory duties on which were removed by 9 and 10 Vict., cap. 63.

The Indian Government complied with this request, extending the application to the Presidencies of Madras and Bombay. On the receipt of the required information, the Indian Government, in 1848, caused the tabulated statements, with explanations of them, to be printed; constituting an official document. Although this document may be in the hands of interested parties in India, it has not been published in Europe, and is most probably little known. I may, therefore, be doing a certain amount of good in giving to it some publicity by submitting it to the Statistical Section in as condensed a form as is consistent with a perspicuous understanding of its details. It is not to be denied, however, that the numerous instances of *estimated* land under cane cultivation—estimated produce,—estimated consumption—and the marked discrepancies between these estimates, even from neighbouring districts, much more from distant parts of the country, lessen very much the value of the Returns, so that on the whole, they can only be considered as approximations to the truth: still I believe they are the only approximations we have. The document is designated "Statistics of British East India Sugar," but I cannot claim for it a better title than "Contributions to the Statistics of Sugar produced in India."

Sugar in India is produced from several sources: the sugar-cane, of which there are several varieties—the Date (*Phœnix dactylifera*), Palmyra (*Borassus flabelliformis*) and Cocoa-nut (*Cocos nucifera*) trees: chiefly, no doubt, from the cane, but the produce from the palm tribe is not inconsiderable; for instance:

	Number of Date Trees used for Sugar.	Produce of of Goor in Maunds of 82 lbs each.	Equal to cwts. of Goor.	Equal to cwts. of Sugar.	Produce from 100 Trees.	Produce in lbs. per 100 Trees.
					Mds. S. C.	
Bengal	63,90,590	10,37,445	7,59,558	2,86,519	16 9 5$\frac{3}{4}$	1,330
North-Western Provinces	2,58,071	654	470	156$\frac{2}{3}$	3 12 12*	270
Madras	64,68,368	6,62,218	4,84,838	1,61,612$\frac{2}{3}$	10 9 8	838
Bombay	2,50,063	216	158	53$\frac{2}{3}$	No average	....

In the returns from Bengal and the north-western provinces, Date trees only are mentioned. In the returns from Madras and Bombay the date, palmyra, and cocoa nut trees are included, but very little sugar is made from these trees at Bombay; the juice which is daily drawn from the trees for the most part being fermented and converted into an inebriating liquor called Tarree or Toddy. As the Return of goor from the north-western provinces from this source is also small, the date trees are no doubt applied to the same purpose as in Bombay, for instance:—in the Delhi district 19,738 date trees produced 528 maunds of goor, and in Rohtuk 451 trees are represented to have produced 126 maunds; and in no other district of the north-western provinces do the remaining trees appear to be used for the production of sugar. The average produce to 100 trees in Bengal and Madras has reference only to trees of a mature age and in full bearing. The chief consumption of the saccharine juice of the cane, and that of the date, palmyra, and cocoa-nut trees is in the form of goor, which results from the first process of boiling down the juice to the consistency of bread-dough or putty. Subsequent manipulations improve the goor to khaur, dullooa, and sugar; 40 seers (82$\frac{2}{7}$ lbs.) of goor produce 26 seers (53$\frac{1}{4}$ lbs.) of khaur, but 40 seers of goor produce only 13$\frac{1}{3}$ seers (27$\frac{1}{3}$ lbs.) of sugar. Dullooa is of a quality intermediate between khaur and sugar.

The area under sugar-cane cultivation is returned in Bengal in beegahs of 14,400 square feet, equal, therefore, very nearly, to one-third of an acre; the produce in goor or sugar is returned in maunds of 40 seers, equal to 82$\frac{2}{7}$lbs. avoirdupois, each seer, therefore, weighing 2·057 lbs., and the seer is divided into 16 chettaks of 900 grains each.

The following is the Return from Bengal, comprising nine territorial divisions, independently of Assam. The information is arranged under the following heads:—Territorial Divisions, Districts, Land under *Cane* Cultivation, Produce of Goor, Produce per Beegah (or acre), Number of Date trees producing Goor, Return of Goor, Produce of 100 Trees, Total Goor produced, Population, Consumption of Goor

* On 19,738 trees only.

per Head, Total Consumption of Goor in each District, Balance of Goor for Export, and, finally, *Average* Produce of Goor per Beegah for each Territorial Division. These several heads of information comprise all that it is desirable to know, provided the facts and figures were accurate. I have no doubt that neither zeal nor intelligence was wanting in collecting the information; but admitting that some of the columns of the tabular statements are filled up from absolute data, with a sufficient assurance of accuracy, the deductions from the details in these statements bring out such discrepant results, that inaccuracies must exist somewhere. For instance: in the produce of goor per beegah, the produce of goor from 100 date-trees, and the consumption per head, the first ranges from 19 maunds 20 seers (1,598 lbs.), in Pubna, of the Moorshedabad division, to 1 maund 38 seers (116 lbs.) at Cachar, in the Dacca division. In regard to the produce from 100 date trees, it varies from 50 maunds 11 seers (4,122 lbs.) at Dacca, in the Dacca division, to 8½ seers (17lbs.) only at Balasore, in the Cuttack division; and for the consumption of goor per head of the population we find that it varies from 20 seers (40 lbs.) at Hazareebaugh, in the division of Hazareebaugh, to a seer (2 lbs.), or even less, at Pooneah, Bhaugulpoor division; Rungpoor, Moorshedabad division; and Lohurdugga, and Maunbhoom, in the Hazareebaugh division. And it is not that these contrasts are found in widely separated tracts, differing greatly in physical and social circumstances, but great discrepancies, although not to the extent above noticed, are met with in neighbouring districts. No doubt the varying fertility of the soil, and the age and luxuriant growth of the trees of the palm tribe will occasion very great differences in the products from different localities; and notwithstanding these discrepancies, the averages reduce the final results of the quantity of goor or its equivalent in sugar available for exportation, to a condition which admits of their being subjected to the test of the quantity absolutely exported from Calcutta; and the comparison is unexpectedly satisfactory. The Bengal and Benares divisions have an available export of sugar of 16,90,803 maunds (61,895½ tons), and the quantity actually exported from Calcutta, according to Wilkinson's Commercial Annual in 1845-6 and 1846-7, was respectively 18,39,374 maunds (67,334¼ tons), and 17,15,217 maunds (62,789 tons). The produce of cultivation, therefore, seems understated, and there is probably more truth in the Return from Bengal than an analysis of its details would seem to justify. The districts in which the accuracy of the Returns is questioned for their low produce, are Baraset, Hooghly, Burdwan, Bhaugulpoor, Monghyr, Poorneah, Cuttack, and Koordah. Rungpoor, in the Moorshedabad division, compared with the neighbouring localities, gives a very questionable out-turn. Lohurdugga returns more than an average produce, but the neighbouring districts of Hazareebaugh produce infinitely less. The Returns from the Patna division are believed to be correct. The produce from the date trees at Dacca is so disproportionately large as to render the Return very questionable. The smallness of the Return per 100 trees at Jessore, the principal seat of the date-sugar cultivation, is accounted for by the unproductiveness of the young trees planted since the opening of the home market for East India sugar.

The following is the abstract of the Returns from Bengal.

Abstract of Returns of the Manufacture and Consumption

DIVISION.	DISTRICT.	Cane Produce.		Produce per Beegah.	Date Produce.		Produce of 100 Trees.	Total Goor Produced.
		Beegah of 14,400 Square Feet.	Goor in Maunds of 82 lbs. each.		Trees Number.	Goor in Maunds of 82 lbs, each.		
				M. S. C.				M. S. C.
JESSORE ...	Jessore*.........	600 0 0	6,585 14 10	10 39 0	25,00,000	3,65,853 26 5	14 25 5⅕	3,72,439 0 15
	24-Pergunnahs	4,000 0 0	39,024 15 9	9 30 3¾	20,000	5,853 26 5	29 10 11½	44,878 1 14
	Burdwan	37,512 0 0	4,00,160 39 0	10 26 11½	34,177	1,179 20 7	3 18 0⅔	4,01,340 19 7
	Hooghly	18,000 0 0	1,46,341 18 8	8 5 3¼	5,000	1,951 8 12	39 0 0	1,48,292 27 4
	Nuddea.........	3,479 0 0	31,323 16 9	9 0 2¼	6,23,823	1,33,456 3 14	21 1 9⅙	1,64,779 20 7
	Bancoorah ...	12,000 0 0	1,17,073 6 13	9 30 3¾	...	...	...	1,17,073 6 13
	Baraset.........	4,000 0 0	15,609 30 4	3 36 1½	6,00,000	1,17,073 6 13	19 20 7½	1,32,682 37 1
	Total	79,591 0 0	7,56,118 21 5	...	37,83,000	6,25,367 12 8	...	13,81,485 33 13
BHAUGULPORE.	Bhaugulpore...	16,875 0 0	51,219 20 7	3 1 8	4,00,000	...	...	51,219 20 7
	Dinajpore	30,000 0 0	2,92,682 37 11	9 30 3¾	700	...	...	2,92,682 37 11
	Monghyr	20,986 0 0	1,01,560 39 0	4 33 9¼	2,00,000	...	...	1,01,560 39 0
	Poorneah	33,750 0 0	1,95,121 38 0	5 31 4	2,500	...	...	1,95,121 38 0
	Tirhoot	52,813 0 0	7,80,487 32 3	14 31 2	2,00,000	...	...	7,80,487 32 3
	Maldah	...	...	...	Unknown	...	...	...
	Total	1,54,424 0 0	14,21,073 7 5	...	8,03,200	...	...	14,21,073 7 5
CUTTACK ...	Cuttack.........	1,543 7 1	10,511 35 6	6 33 2	...	...	...	10,511 35 6
	Balasore	2,800 6 14	27,808 23 6	9 37 4	11,615	25 24 6	0 8 14⅕	27,834 7 12
	Midnapore	32,701 5 15	3,70,103 14 10	11 12 11¼	...	...	...	3,70,103 14 10
	Koordah	4,343 4 12	11,988 24 6	2 31 11¼	33,048	...	...	11,988 24 6
	Total	41,388 4 10	4,20,412, 17 12	...	44,663	25 24 6	...	4,20,438 2 2
MOORSHEDABAD.	Moorshedabad	1,818 5 8	20,580 9 12	11 15 0¼	30,394	7,488 22 7	24 26 3⅒	28,068 32 3
	Bagoorah	12,000 0 0	1,75,609 30 4	14 25 5¾	...	...	...	1,75,609 30 4
	Rungpore	19,403 0 0	86,764 0 15	4 4 15¼	20	...	...	86,764 0 15
	Rajshahye......	4,000 0 0	50,585 14 10	12 25 13½	*	...	...	50,585 14 10
	Pubna	5,000 0 0	97,560 39 0	19 20 7¾	14,000	3,414 25 5	24 15 9¾	1,00,975 24 5
	Beerbhoom ...	10,000 0 0	97,560 39 0	9 30 3¾	...	...	...	97,560 39 0
	Total	52,221 5 8	5,28,661 13 9	...	44,414	10,903 7 12	...	5,39,564 21 5
DACCA	Dacca............	27,000 0 0	98,475 0 0	3 25 14¼	5,000	2,514 0 0	50 11 3¼	1,00,989 0 0
	Furreedpore...	10,237 0 0	1,27,341 0 0	12 17 9	15,01,000	3,66,098 0 0	24 15 9¾	4,93,439 0 0
	Mymensing ...	6,994 0 0	44,854 0 0	6 16 8½	...	...	...	44,854 0 0
	Sylhet	13,157 0 0	1,75,612 0 0	13 13 4⅓	10	...	...	1,75,612 0 0
	Backergunge..	25,000 0 0	1,17,074 0 0	4 27 4¼	50,000	6,342 0 0	12 27 5¾	1,23,416 0 0
	Cachar	1,200 0 0	2,342 0 0	1 38 1	...	...	...	2,342 0 0
	Total	83,588 0 0	5,65,698 0 0	...	15,56,010	3,74,954 0 0	...	9,40,652 0 0
PATNA	Shahabad	41,593 15 0	6,43,902 17 9	15 19 3¾	...	...	...	6,43,902 17 9
	Patna............	22,687 10 0	4,09,756 3 14	18 28 7	...	...	...	4,09,756 3 14
	Behar............	47,265 12 8	8,53,658 21 7	18 2 7⅓	...	...	...	8,53,658 21 7
	Sarun............	51,046 17 8	7,21,951 1 10	14 5 4¼	...	...	...	7,21,951 11 10
	Total	1,62,593 15 0	26,29,268 14 8	...	...	...	...	26,29,268 14 8
ASSAM	No return......	...	...	...	...	...	...	...
ARRACAN...	Akyab	74 7 4	248 0 0	3 13 6¾	...	...	...	248 0 0
	Aeng	1 5 3	...	...	...	...	...	...
	Ramree.........	9 9 1	...	...	...	...	...	...
	Sandoway......	605 0 0	5,924 0 0	9 31 10½	...	...	...	5,924 0 0
	Total	690 1 8	6,172 0 0	...	...	...	...	6,172 0 0
HAZAREEBAUGH.	Hazareebaugh	51,979 10 0	1,78,027 12 11	3 16 15¾	1,975	...	...	1,78,027 12 11
	Lohurdugga...	500 0 0	7,317 2 15	14 25 5¾	300	...	...	7,317 2 15
	Maunbhoom...	4,370 0 0	24,585 14 10	5 25 0½	1,028	...	...	24,585 14 10
	Total	56,849 10 0	2,09,929 30 4	...	3,303	...	...	2,09,929 30 4
CHITTAGONG.	Chittagong.....	7,392 0 0	60,097 22 7	8 5 4½	1,00,000	12,195 4 14	12 7 12⅓	72,292 27 5
	Tipperah	33,333 6 10	1,46,341 9 4	4 15 9¾	...	...	...	1,46,341 9 4
	Bullooah	...	...	...	56,000	14,000 0 0	25 0 0	14,000 0 0
	Total	40,725 6 10	2,06,438 31 11	...	1,56,000	26,195 4 14	...	2,32,633 36 9
Grand Total	9 Div. exclusive of Assam	6,72,071 3 4	67,43,772 16 6	...	63,90,590	10,37,415 9 8	...	77,81,217 25 4
					9,37,278	The juice of which is reserved for an		
					73,27,868			

of Sugar, Goor, &c., in the Bengal Division.

Population.	Consumption.		Remains for Export.	Average Produce from Cane per Beegah in each Division.	Remarks.
	Rate per Head.	Goor in Maunds of 82 lbs. each.			
			M. S. C.	M. S. C.	
3,81,744	About 4 Seers 14 Chs. of 82 lbs. to a Maund in each District.	46,688 11 11			* Jessore and Furreedpore are the chief fields for the production of Date Sugar in the Bengal province, but the proportion of produce given is so much below known experience that there is reason to suppose that the number of trees here shown include a large proportion planted since the opening of the Sugar Market at home and which are still unproductive.
2,88,000		35,121 38 0			
18,54,152		2,26,116 3 14			
15,20.840		1,85,468 11 11			
2,98,736		36,431 8 12			
4,80,000		58,536 28 4			
5,22,000		63,658 21 7			
53,45,472	……	6,52,021 3 11	7,29,464 30 2	†9 26 0	† Cane—Date being 16 Mds. 21 Srs. 4 Chs. per 100 trees.
20,00,000	9¾ Seers of ditto	4,87,804 35 2			
12,00,000	3 „ of ditto	87,804 35 1			
8,00,000	9¾ „ of ditto	1,95,121 38 0			
16,00,000	1 „ of ditto	39,024 15 9			
24,00,000	10 „ of ditto	5,85,365 34 2			
4,31,000	3 „ of ditto	‡ 29,268 10 7			‡ This must be all imported, but chiefly from districts of the same division.
84,31,000	6 Seers of 80 lbs. per Md.	¶14,24,390 8 5	None	9 8 3	¶ The consumption exceeds the produce by 3,317 Mds. 1 Sr.
10,00,000	2½ Seers of 80 lbs.	§ 48,875 30 3			§ The imports are from the Madras Presidency, the Tributary Mehals, &c.
5,56,395	7½ „ of 82 lbs. per Md.	‖1,04,324 2 8			‖ Sugar from the South, and sugar-candy, etc., from the North, have ready sale.
6,66,328	16 „ „ „	2,67,455 36 9			The rates of consumption are taken in the average of the other districts, the Collector not having supplied it in his statement.
5,71,160	7 S. 10 C. of 80 lbs. per Md.	1,03,434 10 12			
27,93,883	7½ Seers of 82 lbs.	5,24,090 0 0	None	10 6 5	The consumption exceeds the produce by Mds. 1,03,651 37 14.
10,45,000	2 S. 5 C. 17 G. of 80 lbs.	60,305 18 8			
9,00,000	2 0 0 ditto	43,902 17 9			
25,59,000	0 11 5 ditto	44,258 9 4			
6,71,000	9 0 0 ditto	1,47,292 27 5			* There are many trees about Naldore, Pooteah, etc., but the juice is not made into Goor.
6,00,000	5 0 0 ditto	73,170 29 4			
10,40,876	1 14 3 ditto	48,780 19 8			
68,15,876	2 8 0 of 80 lbs.	4,17,710 1 6	1,21,854 19 15	†10 4 5½	† Date yielding 24 Mds. 22 Srs. 4 Chs. per 100 trees.
6,00,000	10 Seers	1,46,340 0 0			
8,55,000	12 „	2,50,990 0 0			
14,87,000	1 Seer 5½ Chittacks	48,508 0 0			
3,80,000	15 Seers 6 „	1,46,340 0 0			
7,33,800	5 „	89,486 0 0			
Not stated	……	4,684 0 0			
40,55,800	6¾ Seers	6,86,348 0 0	2,54,304 0 0	6¾ Mds.	
16,00,000	……	3,12,195 4 14			
12,00,000	……	2,04,878 1 15			
25,00,000	……	4,26,829 10 12			
17,00,000	……	3,31,707 12 10			
70,00,000	7 Seers 5 Chs. of 82 lbs.	12,75,609 30 3	13,53,658 24 5	16 6 13	
…	……	…	…	…	The only export is 3 to 400 Mds. from a factory.
No return	1 Seer each for Mughs and Burmahs	10,825 0 0			
Ditto		3,171 0 0			
Ditto	6 Seers for Natives.	2,082 0 0			
Ditto	12 „ for Bengallees.	1,175 0 0			
…	……	17,253 0 0	None	…	The consumption exceeds the produce by Mds. 11,081.
3,58,244	20 Seers 6 Chs. of 80 lbs.	1,78,027 12 11			
4,80,000	1 Seer ditto	11,707 11 7			
6,40,000	0 Seer 10 Chs. ditto	9,756 4 0			
14,78,244	5 Seers 6 Chs. of 82 lbs.	1,99,490 28 2	10,439 2 2	3 27 11	
10,00,000	5 Seers 1 Ch. of 80 lbs.	99,609 30 4			
8,06,950	9 „ ditto	1,77,257 12 11			
6,00,000	9 lbs.	64,000 0 0			
24,06,950	5 Seers 10 Chs. of 82 lbs.	3,40,867 2 15	None	*5 2 12	* Date giving 16 M. 31 S. 10 C. per 100 trees. The consumption exceeds the produce by Mds. 1,08,233 6 6.
38327225	5 Seers 12½ Chs. of 82 lbs.	55,37,779 34 10	22,43,437 30 10	10 1 5¾	Date yielding 16 M. 9 S. 5 C. per 100 trees, the rate in Jessore being 14 M. 25 S. 5 C., and in Furreedpore 24 M. 15 S. 9¾ C.

intoxicating liquor and not manufactured into Goor.

From the above Return it is seen that under the Bengal Government 672,071 beegahs, or about 224,027 acres, were under sugar-cane cultivation, producing 4,937,404 cwt. of goor, or 82,290 tons of sugar; and 6,390,590 date trees produced 759,558 cwt. of goor, or 12,659$\frac{1}{3}$ tons of sugar, but owing to the average home consumption of nearly 12 lbs., (11$\frac{625}{700}$) per head of goor, equal to 67,577$\frac{1}{2}$ tons of sugar, the quantity remaining for export amounted only to 1,642,320 cwt. of goor, or 27,372 tons of sugar.

North-Western Provinces.—The next Return in the order of proximity is that from the north-western provinces; it is brought up to June 1848. The Lieutenant-Governor, Mr. Thomson, has for some years past so carefully and perseveringly elaborated the statistics of his Government with a view to obtaining an accurate knowledge of the entire population and resources of the north-western provinces, comprising an area of 43,937,062 acres, and a population of 19,733,742 souls, that although the Return under its different heads is founded upon estimates, there is full assurance that no labour will have been wanting to insure accuracy as far as was practicable. Discrepancies exist in the out-turn per acre of goor in the different districts, but nothing approaching to those in the Bengal Return, the limits being (with two exceptions where the cane is scarcely grown) from 514 lbs. per acre to 3,480 lbs. per acre, the average being 1,410 lbs. of goor, or 4 cwt. 12 lbs. per acre, the average of Bengal being nearly double this amount. One-third of these amounts is the produce of sugar from goor. In the districts of Agra and Azimghur is found the maximum produce per acre, Azimghur being the principal sugar-growing district of the north-western provinces, the adjoining district of Goruckpore being the next greatest, both of them being in the Benares division; Goruckpore and Benares producing respectively 834 lbs. and 750 lbs of goor per acre, while Azimghur is represented to produce 2,790 lbs. per acre.

The estimated number of date trees in the north-western provinces is 258,071, but in the districts of Delhi and Rohtuk only is sugar made from them to a very limited extent; 19,287 trees in Delhi produce 42,240 lbs. of goor, while 451 trees in Rohtuk produce 10,080 lbs. of goor, the average to 100 trees in the first case being 218 lbs., and in the last 2,234 lbs. It is scarcely possible both can be right. The remaining date trees in the north-western provinces are either not tapped at all, or, if tapped, the juice is fermented to make the inebriating liquor Tarree. It is in the estimate of the consumption of goor and sugar per head that the discrepancies are of a character to render its truthfulness more than questionable. In the Delhra Dhoon the inhabitants are represented to consume 96$\frac{3}{4}$ lbs. of goor (32 lbs. sugar) per head per annum, while in Mirzapoor, with a surplus produce, only 6$\frac{1}{2}$ lbs. (2$\frac{1}{6}$ lbs. sugar) per head are consumed, and in the neighbouring district of Benares 64 lbs. (21$\frac{1}{3}$ lbs.) per head are consumed. In the mountains of Kumaon and Gurhwul it may be supposed that less than a pound of goor or sugar may be consumed; but in the thinly peopled valley of the Delhra Dhoon the consumption of 96$\frac{3}{4}$ lbs. per head is improbable. The area under sugar-cane cultivation is estimated at 1,830,538 beegahs or 610,179$\frac{2}{3}$ acres, and the total produce of the north-western provinces is represented to be 10,758,508 maunds of goor of 80 lbs. each, equal to 384,232 tons, or of sugar 128,077⅓ tons; and as the consumption is estimated at 217,933 tons, or sugar 72,644⅓ tons, there would remain available for exportation 166,299 tons, or of sugar 55,433 tons; but of this little goes to Calcutta, excepting from the Benares division.

The production of goor from the Saugor division, roughly put at 251,134 maunds, is not included, owing to some accidental arithmetical errors.

The third Return is from the Madras Presidency, comprising 21 districts. In this Return, as in the preceding, there are great discrepancies with respect to the produce from a definite superficial area—in some districts called acres, in others potties—in others cawnies, and elsewhere vailies or moodahs, but the whole are in a parallel column converted into beegahs of 14,400 square feet, by a process which is not explained. In the district of Cuddapah as much as 6,564 lbs. of goor (at Madras called jaggery), nearly 3 tons per acre, equal to one ton of sugar, is produced, while in others (setting aside the woody regions of Malabar and Canara), as Tanjore and Trichinopoly, 1,278 lbs. (11⅓ cwt.) and 1,434 lbs. (12¾ cwt.) are respectively produced. The average of the whole produce per beegah is stated to be 12 mds., 37 seers, 2 ch., or about 27¾ cwt. of goor or jaggery, which would give less than half a ton of sugar per acre. The total extent of land under cane cultivation is 84,947 beegahs, or, at three beegahs to the acre, 28,316 acres, producing 11,00,740 maunds of goor, equal to 13,104 tons of sugar. At Madras the palmyra, as well as the cocoa-nut and date tree, are used to produce sugar; the date, however, is only mentioned in Nellore and Cuddapah. The total estimated number of those trees is 6,468,368, but in six of the districts their sap does not appear to be used for the production of sugar, and in several others the Return of jaggery is so small for the number of trees that it is plain the greatest part of the juice is used for conversion into tarree. The chief localities for the production of sugar from the palm tribe are Tinnevelly, which produces more than the half of the total amount, Coimbatore producing one-sixth, and Salem producing about one-fourteenth. The total amount of goor or jaggery from the Return from trees is stated to be 662,218 maunds of 80 lbs. each, equal, therefore, to 23,650½ tons of jaggery, or 7,883½ tons of sugar. Very little reliance can be placed upon the average produce per 100 trees, considering that no statement is made of the number of trees in each district devoted respectively to the production of sugar and tarree. The out-turn in Malabar per 100 trees is put down at 3,092 lbs. of jaggery, while in Rajahmundry, with a million and a half of trees, the return is only 86 lbs. of jaggery per 100 trees. In the estimated consumption per head, there are not those violent contrasts as exhibited in the Return from the north-western provinces. The maximum consumption is 18¾ lbs. in Tinnevelly, and the minimum 1 lb. in Canara, where, from the character of the country and the people, the consumption might be looked for as small. The population of the different districts is not given in the Return, nor the total population under the Madras Government; but in a paper of mine on the Civil Justice of British India, read before the Statistical Society, I had occasion to consider the total population about 13,046,484 souls; dividing this number into the consumption of goor, the result would give about 6$\frac{7}{13}$ lbs. of jaggery, or nearly 2⅕ lbs. of sugar per person.

Abstract Statement of the Annual Produce and Consumption of Sugar in the Districts of the North-Western Provinces.

DIVISION.	DISTRICT.	Estimated cultivation of Cane in Beegahs of 27,225 square feet.	Equal to Beegahs of 14,400 square feet.	Estimated produce of Goor from Cane in maunds of 80 lbs.	Average produce per Beegah of 14,400 square feet.	Estimated number of Date Trees.	Estimated produce of Goor from Date in maunds of 80 lbs.	Average produce per 100 Trees.	Estimated consumption of the District, whether in Sugar, Khaur, Goor, or the Raw Cane itself, reduced into their equivalents in Goor in maunds of 80 lbs.	No. of lbs. per head on which the estimate in Column 10 is based.	Quantity remaining in Districts after consumption.	Quantity consumed in Districts above the produce.
					M. S. C.			M. S. C.				
DELHI.	Bhutteeana............	....	....	....	....	....	....	....	....	....	....	....
	Paneeput	8,524	16,115	68,718	4 10 9	....	....	....	26,434	8·18	42,284	....
	Hissar	4	7	20	2 34 4	....	....	....	38,857	14·75	....	38,837
	Delhi	10,027	18,957	1,27,141	6 28 4	19,287	528	2 29 6	44,907	11·75	82,234	....
	Rohtuck...............	4,788	9,052	38,532	4 10 4	451	126	27 37 3	34,719	9·31	3,813	....
	Goorgaon	44	83	229	2 30 5	....	....	....	1,38,097	24·00	....	1,37,868
	Total........	23,387	44,214	2,34,640	....	19,738	654	....	2,83,014			
MEERUT.	Dehra Dhoon.........	1,666	3,149	8,600	2 29 3¾	....	....	....	67,725	96·75	....	59,125
	Saharunpore	40,800	77,137	4,22,940	5 19 5	2,097	....	....	2,20,625	36·93	2,02,315	....
	Muzzuffernugur....	35,050	66,266	4,78,443	7 8 12¾	....	....	....	1,65,000	30·00	3,13,443	....
	Meerut	46,153	87,220	5,74,194	6 25 5⅓	....	....	....	3,73,427	42·25	2,00,767	....
	Boolundshuhur	2,958	5,592	1,620	0 11 9⅓	5,620	....	....	2,23,179	40·00	....	2,21,559
	Allyghur	2,614	4,942	17,370	3 20 9⅓	9,533	....	....	1,33,056	25·75	....	1,15,686
	Total........	1,29,221	2,44,306	15,03,167	....	17,250	....	....	11,83,012			
KUMAON.	Kumaon................	198	374¼	167	0 17 13¾	100	....	....	13,000	4·	....	12,833
	Gurhwul	....	....	....	....	....	....	....	1,000	·26	....	1,000
	Total........	198	374¼	167	....	100	....	....	14,000			

ROHILKUND.	Bijnour	59,270	1,12,057	9,72,775	8 27 3¾	....	....	....	1,61,943	24·00	8,10,832	....
	Mooradabad	31,169	58,928	4,77,117	8 3 13¾	2,10,102	....	....	1,50,891	12·81	3,26,226	....
	Budaon	25,852	48,876	2,40,651	4 36 15	....	....	....	1,38,157	36·00	1,02,494	....
	Bareilly	68,007	1,28,575	6,53,593	5 3 5	....	....	....	3,93,687	12·50	2,59,906	....
	Shajehanpore........	42,038	79,478	5,41,042	6 32 4¾	....	....	....	1,81,338	20·00	3,59,704	....
	Total........	2,26,336	4,27,914	28,85,178	....	2,10,102	....	....	10,26,016			
AGRA.	Muttra	3,672	6,942	58,649	8 17 14	1,485	....	....	1,52,336	23·00	....	93,687
	Agra	1,508	2,851	41,591	14 23 8	99	....	....	96,596	9·68	....	55,005
	Furruckabad	12,904	24,396	95,327	3 36 4¾	....	....	....	50,426	5·37	44,901	....
	Mynpoory	6,236	11,789	40,623	3 17 13⅓	....	....	....	32,745	4·50	7,878	....
	Etawah	10,768	20,358	66,199	3 10 1	5,828	....	....	65,941	11·50	251	....
	Total........	35,088	66,336	3,02,389	....	7,412	....	....	3,98,051			
ALLAHABAD.	Cawnpore	15,049	28,452	1,03,009	3 24 10	....	....	....	1,64,506	15·37	....	61,497
	Futtehpore............	4,411	8,339	37,060	4 17 12	787	....	....	41,323	6·37	....	4,263
	Humeerpore	2,689	5,083	29,048	5 28 9	167	....	....	26,058	12·00	2,990	....
	Calpee	581	1,098	7,318	6 26 9	....	....	....	12,542	6·06	....	5,224
	Banda..................	172	325	3,000	9 9 3	....	....	....	30,000	....	....	27,000
	Allahabad	7,781	14,710	91,891	6 9 13	300	....	....	1,34,856	15·00	....	42,965
	Total........	30,683	58,007	2,71,326	....	1,254	....	....	4,09,285			
BENARES.	Goruckpore	2,25,548	4,26,426	14,84,288	3 19 3	....	....	....	5,70,722	19·37	9,13,566	....
	Azimghur	91,770	1,73,502	20,19,087	11 25 7	....	....	....	12,23,511	37·50	7,95,576	....
	Jounpore	37,053	70,053	3,57,764	5 4 4	344	....	....	85,747	10·00	2,72,017	....
	Mirzapore	17,701	33,465	1,82,169	5 17 11	250	....	....	58,500	6·50	1,23,669	....
	Benares	92,376	1,74,648	5,46,728	3 5 3	1,335	....	....	4,40,186	64·00	1,06,542	....
	Ghazeepore	58,866	1,11,293	9,71,605	8 29 3	286	....	....	4,10,088	43·50	5,61,517	....
	Total........	5,23,314	9,89,387	55,61,641	5 24 13¾	2,215	....	....	27,88,754			
	Grand Total........	9,68,227	18,30,538¼	1,07,58,508	5 35 1⅓	2,58,071	654	....	61,02,132			

Statement showing the Probable Quantity of Land Cultivated for Sugar in the Districts under
Probable Quantity of both of

No.	District.	Estimated Cultivation of Cane in Cawnies, &c.		Equal to Beegahs of 14,000 square feet.	Estimated produce of Jaggery from Cane in Maunds.	Equal to Maunds of 80 lbs.			Average produce per Beegah.			Estimated Number of Palmira, &c., Trees.	
					Maunds.	Mds.	S.	C.	M.	S.	C.		No.
1	Ganjam	Acres	4,000	12,000	5,00,000	1,50,000	0	0	12	20	0	Being Zemindary Districts	
2	Vizagapatam	... ...	...	...	2,14,655	67,090	20	8		...		Particulars not known ...	
3	Rajahmundry	Potties .... or Acres......................	224 1,792	5,376	1,78,000	55,625	0	0	10	13	14	....	15,00,000
4	Musulipatam	... ...	...	...	None	...	...			...		....	4,47,533
5	Guntoor	Acres	2	6	24	7	2	3¼	1	7	8	....	3,58,153
6	Nellore	Goortoo each, equal to 1,37,812½ square feet	$1\frac{22\frac{1}{4}}{64}$	12⅘	240	75	0	0	7	0	0	Palmira...... Date	1,84,744 84,139
													2,68,883
7	Bellary	Acres	3,500	10,500	4,20,000	1,31,250	0	0	12	20	0	....	31,382
8	Cuddapah ...	Acres	4,694	14,082	12,52,322	3,85,480	14	8½	27	14	14	Palmira...... Date	1,42,827 5,82,291
													7,25,118
9	Kurnool	Acres	81	243	9,720	3,037	30	0	12	20	0	....	30,000
10	Chingleput ...	Cawnies	129	516	15,787	4,933	17	8	9	22	6	....	20,107
11	Salem	Acres	1,083	3,249	86,615	27,067	7	8	8	13	2½	....	4,00,044
12	North Arcot	Cawnies	4,512	18,048	5,38,705	1,68,345	10	0	9	13	1½	....	1,49,237
13	South Arcot	Cawnies	1,006	4,024	1,04,415	32,629	27	8	8	4	5½	....	23,643
14	Tanjore	Vallies each equal to 5 Cawnies......	101	2,020	34,741	10,795	0	0	5	13	13	Palmira...... Cocoanut ...	20,038 1,047
													21,085
15	Madura	Cawnies	136	544	13,545	4,245	22	8	7	32	0	....	1,41,016
16	Trichinopoly	Cawnies	1,027	4,108	74,669	24,584	2	8	5	39	6	Palmira...... Cocoanut ...	123 51,953
													52,076
17	Tinnevelly ...	S. C. .... or Cawnies	62 76	304	12,143	3,794	27	8	12	22	11	....	17,42,634
18	Coimbatore...	Cawnies	621	2,484	18,470	18,470	0	0	7	17	6¾	....	4,37,087
19	Canara	Moodahs .... or Acres.................	2,369	7,107	37,540	10,481	10	0	1	19	0	....	12,398
20	Malabar	Cawnies	21	84	268	93	32	0	1	4	10	Palmira...... Cocoanut ...	36,442 36,530
													72,972
21	Madras	Cawnies	60	240	8,749	2,735	12	8	11	11	10		35,000
				84,947⅘	35,20,611	11,00,740	36	11¾					64,68,368

Jaggery from Cane.........
Ditto from Palmira, &c....

Total..............
Deduct consumption ......

Remainder ......

the Madras Presidency, the Probable Quantity of Sugar and Jaggery Produced, and the these Consumed in each District.

Estimated produce of Jaggery from Palmira, &c., in Maunds.	Equal to Maunds of 80 lbs.	Average produce per 100 Trees.	Estimated Consumption of the District, whether in Sugar, Jaggery, or the raw Cane itself, the whole being reduced into their equivalents in Jaggery in maunds, computed at an average of per head during the year on the assumed or ascertained population.		Average Consumption per head.	The rate of Conversion into Maunds.
Maunds.	M. S. C.	M. S. C.		Maunds. lb. oz.	lbs. oz. dr.	lbs. oz. dr.
...	...	...	....	1,50,000 0 0	8 3 7	At 24 0 0
...	...	...	....	2,14,655 0 0	5 2 0	25 0 0
56,000	17,500 0 0	1 6 10½	....	48,000 0 0	1 14 0	The rate is not given in the Collector's Statement.*
10,543¼	3,253 20 0	0 31 5	....	26,916 15 $1\frac{15}{16}$	1 12 0	24 10 15 $245\frac{6}{7}$
6,000	1,843 18 0	0 20 9	....	28,711 10 7⅞	1 13 10	24 10 15
5,826½ 6,508½	...	...	Palmira Jaggery ...... Date ditto............... Cane ditto	5,826½ 0 0 6,508½ 0 0 28,245⅝ 0 0	2 8 7½	25 0 0
12,335	3,854 27 8	1 17 5	....	40,580 15 10		
None	...	...	....	2,03,041 6 4	4 8 1	25 0 0
1,186 27,002	...	...	Palmira Jaggery ...... Date ditto............... Cane ditto	1,186 0 0 27,002 0 0 3,16,844 0 0	7 2 4	24 10 0
28,188	8,694 0 0	1 7 15½	....	3,45,032 0 0		
None	...	...	....	26,640 0 0	3 0 0	25 0 0
13,235	4,135 37 8	20 22 9¼	....	64,730 0 0	3 14 8	25 0 0
1,49,998	46,875 0 0	11 28 12	....	1,72,466 0 0	4 8 0	25 0 0
53,757½	16,800 0 0	11 10 6	....	1,11,250 0 0	3 2 0	25 0 0
12,206	3,812 20 0	16 6 3	Cane Jaggery .... Palmira ditto	82,015 18 12 12,206 0 0	3 13 12	25 0 0
				94,221 18 12		
12,295 1,522	...	...	....	1,31,773 9 6⅞	2 14 2	24 10 15½
13,817¼	4,263 33 8	20 12 2				
47,720	14,912 20 0	10 23 0	....	2,42,666 10 15	4 11 0	25 0 0
8,680¼	1,462 20 0	2 32 11	....	83,349 9 6	3 6 12	25 0 0
12,73,314½	3,94,160 25 0	22 24 12	Cane. In Hindoo Temples and for Maramut	3,572 5 0		
			Cane. By Population......	24,399 2 0	9 6 0	
			Palmira. In Hindoo Temples and for Maramut	2,777 9 0	...	25 0 0
			Palmira. By Population......	7,59,745 22 0	18 12 0	
				7,90,494 13 0		
1,07,449	1,07,449 0 0	24 23 11	....	92,051 0 0	9 5 6	At 80 lbs., or 3200 Rs weight per Maund.
6,212	1,941 10 0	15 26 0¾	....	36,824 0 0	1 0 0	The rate is not given in the Collector's Statement.*
35,048½ 45,478¼	...	...	....	1,09,866 21 0	2 8 0	28 0 0
80,526¾	28,184 4 0	38 26 7				
9,843½	3,075 37 8	8 31 5½	....	2,63,513 11 8	14 0 4	The rate is not given in the Collector's Statement*.
18,89,826	6,62,218 33 0			32,76,783 16 $7\frac{11}{16}$		
35,20,611 18,89,826	11,00,740 36 11¾ 6,62,218 33 0					
54,10,437 32,76,783	17,62,959 29 11¾ 10,67,720 0 0					
21,33,654	6,95,23 29 11¾					

* Assumed at 25 lbs. per Maund.

The total produce of jaggery in the Madras Presidency is represented to be 1,762,959 maunds of jaggery of 80 lbs. each, equal to 20,987½ tons of sugar, and the consumption is 1,067,720 maunds, or 12,711 tons of sugar, leaving available for export 695,239 maunds of jaggery, or 8,276½ tons of sugar.

Bombay.—The fourth Return is that from the Bombay Presidency, and is brought up to April 1848; it comprises only an analysis of the Returns from the different collectorates, and does not enter into any details. The various discrepancies which no donbt exist in the out-turn per acre, the produce per 100 date trees, and the consumption per head in the different Zillahs or districts is not in view, and comment upon them, therefore, is prevented. The Return, however, has no more claim to absolute accuracy than the preceding; for the land under cane cultivation is "estimated" as is the number of date-trees, and it contributes little more information than to show that the quantity of goor or sugar consumed within the Bombay presidency considerably exceeds the quantity raised within its territory, and that for the present, at least, Bombay cannot contribute to the consumption of sugar in Great Britain; although, from my personal knowledge of the lands under Bombay, neither in the quality of the soil, its availability for cultivation, the means of irrigation, or the character of the cane (of which there are four varieties), or the average industry and skill of the people, is there any insuperable impediment to there being at a future time a surplus product of sugar for exportation. I have shown in my examination before Lord George Bentinck's Sugar and Coffee Committee of the House of Commons, that a careful cultivator has ample profit upon cane cultivation, even under the former discriminating assessments of field and garden cultivation, and as these assessments have lately been more nearly assimilated and the assessments generally lowered, the advantage to the farmer of cane cultivation would seem to be increased rather than deteriorated. Nevertheless Bombay long has imported, and still continues to import large quantities of sugar for home consumption, beyond the quantity in transit from Java, Siam, and the eastern islands, intended for the markets of the Persian Gulf and Red Sea.

The Return estimates the land in the Bombay presidency under cane cultivation as low as 25,782 acres, producing 6,52,311 maunds of 80 lbs. each of goor, nearly equal to 7,765⅓ tons of sugar, averaging somewhat more than 6 cwt. per acre, which is two-thirds less than the average out-turn per acre in the West Indies, which is represented to be one ton. The consumption per head is given in the Bombay Return at 8 lbs., but upon what authority is not stated. The total consumption is stated to be 7,61,779 maunds of goor, or 9,069 tons of sugar; being 1,296 tons of sugar in excess of the quantity produced. I should consider the quantity produced and the quantity consumed very considerably greater than is represented in the figures of the Bombay Return, the opinion being based upon the Returns from the other Governments, as well as upon my knowledge of the habits of the people.

Date, cocoa-nut, and palm trees are very numerous under the Bombay presidency on the line of coast from Surat to Malwan and Goa. 250,063 trees only are included in the Return, and as only 216 maunds of goor are said to be produced from them, the trees are evidently devoted to the more lucrative object of obtaining tarree.

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* Maunds 1,09,252 consumed in excess of the produce in the Bombay Presidency.

Return of Goor Produced and Consumed within the Territory subject to the Presidency of Bombay.

DISTRICT.	Estimated cultivation of Cane in Acres of 4,840 square yards each.	Equal to Beegahs of 14,400 square feet.	Estimated produce of Goor from Cane in maunds of 82$\frac{2}{7}$ lbs. each.	Equal to Maunds of 80 lbs.	Average Produce per Beegah.	Estimated number of Date Trees.	Estimated Produce of Goor from Dates in Maunds of 80 lbs.	Total Cane and Date Goor in Maunds of 80 lbs. each.	Estimated Consumption of the District, whether in Sugar, Khaur, Goor, or the Raw Cane itself, the whole being reduced into their equivalents in Goor in Maunds of 82$\frac{2}{7}$ lbs., each computed at an average of 4 seers, or 8 lbs., per head during the year on the assumed or ascertained Population.	Reduced to Maunds of 80 lbs.
In the Zillahs subordinate to the Bombay Presidency	25,782	77,346	6,34,192	6,52,311	M. S. C. 8 17 5½	2,50,063	216 Mds.	6,52,527 Mds.	7,40,497	7,61,779

The Return contains similar details of the cultivation, &c., of the staple in certain native States adjacent to the Bombay presidency; but as these are foreign to the object of the inquiry of the Chamber of Commerce, it is not deemed necessary either to notice or analyze them here.

Abstract Statement of the Cultivation of Lands with Cane, &c., for the purposes of Goor and Sugar, within the Presidencies of Bengal, Madras, and Bombay.

BENGAL DIVISION.									NORTH-WESTERN PROVINCES.								
1.	2.	3.	4.	5.	6.	7.	8.	9.	1.	2.	3.	4.	5.	6	7.	8.	9.
Total Area of Lands cultivated for Cane Sugar computed at Beegahs of 14,400 square feet each.	Produce of Cane Goor in Maunds.	Average per Beegah.	Total Number of Date Trees.	Produce from Date Trees.	Average Produce per 100 Trees.	Total Produce of Cane and Date Goor.	Total Consumption.	Available for Export.	Total Area of Lands cultivated for Cane Sugar computed at Beegahs of 14,400 square feet.	Produce of Cane Goor in Maunds.	Average per Beegah.	Total Number of Date Trees.	Produce from Date Trees.	Average Produce per 100 Trees.	Total Produce of Cane and Date Goor.	Total Consumption.	Remaining unappropriated.
6,72,071	67,43,772 of 82 lbs., or 69,12,366 of 80 lbs.	M. S. C. 10 1 5¾ of 82 lbs.	63,90,590	10,37,445 of 82 lbs., or 10,63,381 of 80 lbs.	M. S. C. 16 9 5¾ of 82 lbs.	77,81,217 of 82 lbs., or 79,75,747 of 80 lbs.	55,37,780 of 82 lbs., or 56,76,224½ of 80 lbs.	22,43,437 of 82 lbs., or 22,99,523 of 80 lbs.	18,30,538	1,07,58,508	M. S. C. 5 35 1⅓	2,58,071	654 Mds.	M. S. C. 3 12 12 of 19,738 trees.	1,07,59,162 Mds.	61,02,132 Mds.	46,57,030 Mds.

MADRAS PRESIDENCY									BOMBAY PRESIDENCY.								
1.	2.	3.	4.	5.	6.	7.	8.	9.	1.	2.	3.	4.	5.	6.	7.	8.	9.
Total Area of Lands cultivated for Cane Sugar computed at Beegahs of 14,400 square feet.	Produce of Cane in Maunds of 80 lbs.	Average per Beegah.	Total Number of Date, Palmira, and Coconut Trees.	Produce from Date, &c., Trees in Maunds.	Average Produce per 100 Trees.	Total Produce in Maunds of Cane, Date, Palmira, and Cocoanut Trees.	Total Consumption in Maunds.	Available for Export.	Total Area of Lands cultivated for the purpose of Cane Sugar converted into Bengal Beegahs of 14,400 square feet each.	Produce of Cane in Maunds of 80 lbs.	Average per Beegah.	Total Number of Date, Palmira, and Cocoanut Trees.	Produce from Date, &c , Trees in Maunds.	Average Produce per 100 Trees.	Total Produce in Maunds of Cane, Date, Palmira, and Cocoanut Trees.	Total Consumption in Maunds.	Available for Export.
84,947⅘	M. S. C. 11,00,740 36 11	M. S. C. 12 37 2	64,68,368	M. S. C. 6,62,218 33 0	M. S. C. 10 9 8	M. S. C. 17,62,959 29 11¾	10,67,720	M. S. C. 6,95,239 29 11¾	77,346	6,52,311	M. S. C. 8 17 5½	2,50,063	216 Mds.	No average is given, because it is probable that a greater part of the date juice is used for other purposes.	6,52,527	7,61,779	

Analysis.

	Total Area of Lands cultivated with Cane.	Total Produce of Cane and Date Goor in Maunds of 80 lbs.	Total Consumption of Cane and Date Goor in Maunds of 80 lbs.	Remainder.	Reduced to Sugar at 13⅓ Seers to one Maund of Goor.
Bengal Presidency, including the N.W. Provinces	25,02,609	1,87,34,909	1,17,78,356½	69,56,552½	23,18,851
Madras Presidency	84,947	17,62,959	10,67,720	6,95,239	2,31,746⅓
Bombay Presidency	77,346	6,52,527	7,61,779*	....	....
Grand Total	26,64,902	2,11,50,395	1,36,07,855½	76,51,791½	25,50,597

Average Produce of the Soil of Cane Goor in the several Presidencies.

Bengal, per Beegah of 14,400 Square Feet.			N. W. Provinces, per Beegah of 14,400 Square Feet.						Madras, per Beegah of 14,400 Square Feet.			Bombay, per Beegah of 14,400 Square Feet.		
						Benares Division								
Mds.	S.	C.	Mds.	S.	C.	Mds.	S.	C.	Mds.	S.	C.	Mds.	S.	C.
10	1	5¾	5	35	1⅓	5	24	13¾	12	37	2	8	17	5½

Straits' Settlements.—The Straits' settlements of Prince of Wales' Island, Province Wellesley, Singapore, and Malacca, being dependent upon the East India Company's Government of India, the Governor of these settlements has supplied Returns similar to those furnished from the Indian presidencies. The land under cultivation is estimated, the number of cocoa-nut trees (there not being any date trees in the settlements) used in the production of sugar is estimated, and the population is assumed; with such elements the results can only be approximate and problematical.

The total number of acres under cane cultivation in the three settlements is 4,476 acres, producing 2,28,812 maunds of 82 lbs. each of goor, or 2,792 tons of sugar. In Malacca the sugar-cane is consumed in its natural state, and in the two other settlements the average produce per acre is represented to be, Prince of Wales' Island, 4,566 lbs. or more than two tons of goor per acre, or 13⅓ cwt. of sugar, while in Singapore it is only 1,740 lbs., or little more than three quarters of a ton per acre, or 5⅙ cwts. of sugar. The produce from 19,175 cocoanut trees is 16,073 maunds, or 588 tons of goor, or about 196 tons of sugar. At Singapore the cocoanut plantations, which are of great magnitude, are too young to be brought to use at present. The average produce of goor per 100 trees in Prince of Wales' Island is 308 lbs., and in Malacca only 46 lbs. The average consumption of goor per head in the three settlements ranges from 11¼ lbs. to 12⅓ lbs., and these averages are derived from the consumption upon private estates in Prince of Wales' Island and Province Wellesley. The population being assumed at 100,000, the consumption at 11¼ lbs. of goor per head is 502 tons of goor, or 167⅓ tons of sugar, leaving available for export 2,719 tons of sugar annually.

An analysis of the preceding Returns in a tabulated form gives the following results :—

	Acres.	Tons of Sugar.	Date Trees, or Palm.	Tons of Sugar.	Total Sugar.	Consumption	Available for Export.	Consumption of Sugar per head.	Produce per Acre.	
					Tons.	Tons.		lbs.	cwt.	lbs.
Bengal	224,027	82,290	6,390,590	12,659⅓	94,949⅓	67,577⅓	27,372	3	7	39
N. W. Provinces	610,179⅓	128,077⅓	258,071	8	128,085⅓	72,644⅓	55,441	8¼	4	12
Madras	28,316⅓	13,104	6,468,368	7,883½	20,987½	12,711	8,276½	2⅕	9	26
Bombay	25,782	7,765⅔	250,063	7¾	7,773½	9,069	None.	8	6	2¾
Total	888,304⅓	231,237	13,367,092	20,558½	251,795½	162,001⅔	*91,989½	...	...	
Straits' Settlements ...	4,476⅓	2,792	19,175	196	2,988	269	2,719	3⅘	10	27

* From this is to be deducted 1296 tons' consumption over production in Bombay, leaving available for export from India 89,793½ tons of sugar.

No. 1.—*Straits' Settlements.*

Estimated cultivation of Canes in Beegahs of 14,400 square feet each.		Estimated produce of Goor from Canes in maunds of 82 lbs.	Average produce per Beegah.	Estimated Number of Trees producing Goor.		Estimated produce of Goor in maunds of 82 lbs. each.	Average produce per 100 Cocoanut Trees.	Estimated Consumption, whether in Sugar, Khaur, Goor, or the Raw Cane itself, the whole being reduced into their equivalents in Goor, in maunds of 82 lbs. each.
				Cocoanut Trees.	Neepah.			
			Mds. S. C.				Mds. S. C.	
Prince Wales' Island and Province Wellesley	11,864	2,20,640	18 23 6¼	1,500	....	5,684	3 31 9	Assumed Population 1,00,000, at an average consumption of 11¼ lbs. of Goor, gives maunds 13,720.
Singapore	1,152	8,172	7 3 12	The Cocoanut Plantations, of which there are several of considerable magnitude, are not of sufficient age to produce either fruit or Goor to any extent.	Growing wild, number unknown.	....	....	Assumed Population 57,000, at an average of 12 lbs. of Goor each, gives maunds 8,341.
Malacca................	413	No Sugar is made from Canes which are all consumed in their raw state.	....	17,675	....	10,389	0 23 8	Assumed Population 52,713, at an average of 12⅓ lbs. of Goor each, gives maunds 7,907.
	13,429	2,28,812	....	19,175	....	16,073	....	

No. 2.—*Return of the Probable Quantity of Land Cultivated for Sugar, and of Sugar and Goor Manufactured and Consumed in the Island of Penang and Province Wellesley.*

Names of Places or Estates in Penang and Province Wellesley.	Estimated cultivation of Cane in Acres of 43,560 square feet each.	Estimated produce of Goor from Cane, in tons of 2,240 lbs. each.	Estimated number of Date Trees.	Estimated produce of Goor from Date, in tons of 2,240 lbs. each.	Estimated Consumption of the Settlement, whether in Sugar, Khaur, Goor, or the Raw Cane itself, the whole being reduced into their equivalents in Goor in tons of 2,240 lbs. each, computed at an average of lbs. 16-782, or of marketable Sugar lbs. 13-585 per head during the year on the assumed or ascertained population.*
Kreean	180	450	There are no Date Trees in these parts, none at least yielding fruit. But Sugar or Goor is manufactured from the produce of the Coconut Tree and the Neepah.		$\frac{3}{20}$ for 400 persons on the Estate, under 1 lb a head.
Tuddenham	140	175			4½ for 400 persons, being above 25 lbs. a head.
Jajawi	366	825			4½ These 2 estates belong to one proprietor, the number of persons
Val Dor.....................................	325	796⅘			$2\frac{2}{10}$ is not given. The consumption is quoted at 10 lbs. each.
Tusseh	280	357½			1¼ for 200 persons, being at the rate of 14 lbs. each.
Looboo Manani...........................	60	75½			for 450 ditto, at 8 lbs. per head.
Caledonia	170	300			for 415 ditto, at 5 lbs. ditto.
Victoria......................................	320	700			for 500 ditto, at 8 lbs. ditto.
Simpang Ampaty	250	750			
Batu Kawan	206	712	,,	,,	Information cannot be obtained.
Otaheite......................................	170	428⅗			
Estates of Europeans, &c., acres	2,467	5,570⅕	Tons of Goor from Cane.		
Captain Ferrier's estimate for the Natives, Province Wellesley............................	1,391	2,506	....	....	$551\frac{3}{20}$ for 59,062 persons, rather short of 21 lbs. a head.
Mr. Gottlieb's ditto of Penang	64	1	At the utmost...........		—— for 39,721 ditto, at about 6⅓ lbs. each.
	3,922	8,077			

Total under Cane, &c., acres 3,922, yielding tons 8,077 of Goor, and with an assumed Population of 1,00,000 persons consuming 11¼ lbs. of Goor each, as the average of opinions. Total of Goor consumed, assumed to be lbs. 11,25,000, or tons 502 per annum.

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* N.B.—This rate is brought out thus:—By No. 1, lbs. 8½ Sugar 6 months' consumption. For the year, lbs. 17, or Goor lbs. 21-25. By No. 2, of Goor lbs. 12-7142, average lbs. 16-982 of Goor, or lbs. 13-585 Sugar.

It is hence seen that 888,304⅓ acres are under sugar cultivation in India, producing 231,237 tons of sagar; that 13,367,092 date, palm, and cocoa-nut trees produce 20,558½ tons of sugar; that the total consumption of sugar in India is 162,001⅔ tons; Bombay consuming 1,296 tons more than its own produce; leaving available for exportation from Bengal, the north-western provinces, and Madras, 91,089½ tons of sugar. The consumption per head averages from 2⅕ lbs. at Madras to 8½ lbs. in the north-western provinces, and the produce per acre ranges from 4 cwt. 12 lbs. in the north-western provinces to 9 cwt. 26 lbs. at Madras.

The Straits' settlements, independently of the above, have 4,476⅓ acres under sugar cultivation, producing 2,792 tons of sugar, and the few cocoa-nut trees at present used to extract sugar produce 196 tons. The consumption is reckoned at 269 tons, about 3⅘ lbs. per head, leaving available for export 2,719 tons of sugar. The produce per acre exceeds that in India, though falling far short of the West Indies, being 10 cwt. 27 lbs. per acre.

The next consideration is the export trade of sugar from Bengal, which since the equalization of the duties in Great Britain on the colonial and Bengal sugar has rapidly progressed, the average annual value per maund having also gradually increased since 1836-7.

The following table, compiled from Bell's and Wilkinson's Reports of the Exports, commences from the three years previous to the concession first made in favour of the East India Company's territories in Bengal:—

Years.	Exported to Great Britain.	To other Ports.	Total Exports of Sugar and Khaur.	Value.	Average Value per Maund.	Tons.	Price per Ton.
	Mds.	Mds.	Mds.	Sicca Rs.	Rs. A. P.		
1833-34	92,963	1,97,670¼	2,90,363¼	25,08,224	7 15 1¾		
1834-35	1,54,590	2,03,925	3,58,515	27,90,959	7 12 6¾		
1835-36	1,95,587	1,73,173¾	3,68,760¾	28,52,515	7 11 9		
				Co's Rs.			£ s. d.
1836-37	3,64,864	2,52,496	6,17,360½	51,38,460	8 5 2	22,600	23 3 6
1837-38	5,95,856	2,18,915	8,14,771	67,18,911	8 3 11¼		
1838-39	7,31,838	1,37,269	8,69,107	74,63,088	8 9 4⅞		
1839-40	7,32,651	1,11,238	8,43,889	73,60,036	8 11 6½		
1840-41	17,17,290	67,501½	17,84,791¼	1,64,68,898	9 3 7⅔		
1841-42	14,52,502¼	69,590	15,22,092¼	1,39,16,426	9 2 3⅔		
1842-43	15,73,145¾	32,385	16,05,530¾	1,48,35,773	9 3 2¾		
1843-44	15,36,476½	6,104½	15,42,581	1,46,04,641	9 7 5¾		
1844-45	15,18,009	21,108¾	15,39,117¾	1,46,91,956	9 8 8¾		
1845-46	18,31,263¼	8,111¼	18,39,374½	1,78,93,188	9 11 7		
1846-47	16,85,336	29,881¼	17,15,217¼	1,67,98,655	9 12 0⅝		
1847-48	16,36,522¾	85,237	17,21,759¾	1,66,28,524	9 10 6⅓	63,028½	26 7 8

"The privilege of importing into the United Kingdom sugar, the produce of Bengal, at the lower rate of duty, came into operation here in December 1836, by Act XXXII* of the Government of India. A gradual increase in the exports is perceptible from that year, though 1837-38 was visited by a commercial crisis in England. The very sudden rise in the export, which took place in 1840-41, is to be accounted for by the material reduction in the production of the article in the West India colonies, in consequence of the Emancipation Law which had its effect there in 1838, a circumstance which led to an unusual high price for all descriptions in England during the year 1840. The supplies fell off again till the further reduction of the duty from 24*s.* to 14*s.* on Bengal in common with the colonial Muscavado sorts under Act 8 and 9 Victoria, cap. 5, passed in April 1845, in which year the export appears to have been the largest in the list. In 1846, the distinction which before existed between foreign and colonial sugars was brought within a narrower compass, and there was a scarcity of grain in Great Britain during that and the preceding year. These causes, combined with the late commercial disasters, and consequent scarcity of money, seem to have in some measure checked the shipments of this staple, as will be apparent from a reference to the preceding table, but not to such an extent as under the above unfavourable circumstances might have been expected.

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* Extended to Madras by Act XV of 1839.

"It has been already observed that in various districts in Eastern Bengal there are thousands of date trees which are still unbearing; the production of which may at no remote period materially add to the present aggregate production; and it is an ascertained fact that the cane cultivation in Lower Bengal is fast improving from the Otaheite (known by the natives as Bombay) cane, which has been of late years substituted both for the sake of its quality and yield."

I am indebted to my friend Mr. Porter, of the Board of Trade, for the following valuable table, which enables me to contrast the consumption of sugar per person in England and India.

Imports of Sugar into Great Britain.

Years.	Quantity of Sugar retained for Consumption.	Molasses equivalent to Sugar taken for Consumption.	Sugar and Molasses retained for Consumption.	Average price of Sugar per "London Gazette."		Average price of Sugar including the Duty.		Average Consumption of each Person.
	cwts.	cwts.	cwts.	*s.*	*d.*	*s.*	*d.*	lbs.
1830........	4,147,350	126,595	4,273,945	25	0¼	49	0¼	19·94
1831........	4,233,509	130,734	4,364,243	23	8	47	8	20·11
1832........	3,974,627	212,508	4,187,135	28	8¼	52	8¼	19·
1833........	3,780,138	241,457	4,021,595	29	7½	53	7½	17·99
1834........	4,013,919	190,492	4,204,411	29	2½	53	2½	18·31
1835........	4,116,153	233,429	4,349,582	33	9½	57	9½	19·21
1836........	3,676,496	246,405	3,922,901	40	9	64	9	16·58
1837........	4,127,446	222,007	4,349,453	34	5	58	5	18·83
1838........	4,089,453	197,329	4,286,782	33	7	57	7	18·38
1839........	3,847,629	199,987	4,047,616	39	4½	63	4½	17·18
1840........	3,606,038	158,672	3,764,710	48	7¾	73	10¼	15·28
1841........	4,057,628	150,696	4,208,328	38	3¼	63	5¾	17·65
1842........	3,868,466	199,865	4,068,331	37	2½	62	5	16·76
1843........	4,028,307	168,558	4,196,865	33	11½	59	2	17·11
1844........	4,129,443	230,030	4,359,473	33	5	58	7½	17·59
1845........	4,856,604	234,700	5,091,304	32	9	46	9	20·33
1846........	5,238,656	218,498	5,457,154	34	5	48	5	21·57
1847........	5,805,638	239,483	6,045,121	28	3	42	3	23·66
1848........	6,208,830	238,894	6,447,724	23	7¼	36	7¼	24·98

Consequent upon the above analysis are some considerations relating to the very small consumption of sugar per head in India; whether originating in the poverty of the people, the cost of production, or the enhanced price resulting from the great demand for exportation.

The following tables, I, II, and III, show the produce and cost of goor and sugar in the provinces of Behar and Benares and in Lower Bengal. In Table I, 10 beegahs, or $3\frac{1}{3}$ acres, cultivated alternate years with cane at a rent of 5rs. a beegah, or 30*s.* an acre (six times the ordinary assessment). The cost of cultivation is 135rs., the produce 150 maunds of goor at 2 rupees per maund, or 10 lbs. for a shilling; giving a profit upon the goor of 165rs. or $122\frac{1}{4}$ per cwt. upon the outlay. Now as the average consumption in Bengal is 9 lbs. of goor per head, the annual expense is less than a shilling laid out in goor. Assuming the highest average consumption of $24\frac{3}{4}$ lbs. of goor per head in the north-western provinces, the annual outlay would be less than half-a-crown, or $2\frac{1}{4}$*d.* per month out of the lowest rate of wages of 72*d.* per mensem. The very great demand for export, therefore, although it necessarily enhances home prices, yet does not appear to do so to the extent to account for the small consumption of goor per person, for it is in this state the produce of the cane is almost wholly consumed by the natives of India.

Carrying on the process, in Table I, of converting goor into sugar, it is shown that the cost is a rupee a maund, or 50 per cent. on the price of the goor, and the return in *three* qualities of sugar and molasses on 450rs. outlay is 500rs., giving a further profit of 50rs., or 11 and a fraction per cent. The highest quality of this sugar selling at 10rs. per maund, 28*l.* per ton, or 3*d.* per lb. This is a somewhat better price ($2\frac{7}{10}$*d.* per pound,) than the West Indians get. Supposing then, sugar to sell at 25*l.* per ton, Table I. shows that a capital of 285rs., including cost of cultivation, gives a profit of 215rs. upon $3\frac{1}{3}$ acres of land.

Table II shows the cost and selling prices of goor and three qualities of sugar, the growth of Lower Bengal, to the importer at Calcutta, including transit charges and dryage; but there is a discrepancy between this table and the preceding, for the Calcutta merchant is represented as buying the first quality of sugar at 8rs. per maund (16*s.*), and selling it at $8\frac{1}{2}$rs. or 17*s.*, whereas in Berar the manufacturer of goor into sugar is represented as obtaining 10rs. per maund for the first quality.

Table III gives the cost and selling prices of date goor and sugar in Lower Bengal; the first quality of this sugar is inferior to that from the cane, and costs the merchant 6rs. per maund (12*s.*), he selling it for $6\frac{1}{2}$ per maund (13*s.*) It is used for compounding with cane sugars for refinery purposes.

The following is the native process of manufacturing sugar in the Behar and Benares provinces:—

A quantity of goor, say 5 to 10 maunds, is put in an earthen vessel mixed with one-third of water;—being strained, it is put in a larger receptacle to settle. The clarified part of the goor and the water are placed in an iron boiler. When the goor becomes sticky it is removed to another vessel; being cooled, it is put in a third, and when settled, the cork at the bottom of the earthen pot is removed and the molasses with the impurities are allowed to run out and collect in a large hole made for that purpose. The goor gets grainy and swells up. Moss* is then applied to the goor for clarifying it;—the molasses are drained off again for three days, after which the moss is taken off, and the clarified part, which then becomes white and swollen to a height of about 1½ to 2 inches on the top of the mass of sugar, is collected, and this process of clarifying is continued till 15 to 20 maunds are collected together, when the whole quantity is spread in the sun on a piece of cloth and trampled upon by Coolies employed for the purpose; by that means the large and thick grains, which before were of a yellowish colour, are reduced to the size of smaller crystals, and the whole quantity becomes of an uniform white colour.

TABLE I.

Assumed Cost and Selling Prices of Sugar in the Provinces of Behar and Benares, during seasons of moderate growth and demand.

				Rs.	
Ground rent at 5 Rupees per Beegah for 10 Beegahs, cultivated in alternate years, 10 more lying fallow				100	
Labour, cuttings, and irrigation				35	
					135
Produce of Goor—150 Maunds of 80 lbs. at 2 Rupees per Maund				....	300
Profit				....	165
MANUFACTURE OF SUGAR.					
Cost of Goor				300	
Charges for Manufacturing Sugar				150	
					450
PRODUCE.	Mds.	Srs.			
1st Quality	37	20	at 10 Rupees per Maund	375	
2nd Ditto	7	20	at 8 „ „	60	
3rd Ditto	5	0	at 6 „ „	30	
Molasses	70	0	at 8 Annas „	35	
					500
Profit				....	50

These provinces, including the districts in the Patna division, produce the largest quantities of sugar, the greater part of which is sent down to Calcutta for the English market. It is to be remarked that upon an invested capital of only 285 rupees, including the cost of cultivating 10 beegahs of land, or 20 beegahs in alternate years, and the manufacture of the produce thereof, an actual profit of 215 rupees would accrue to the grower at the rates assumed above. The prices of this season (1848) when they have ruled exceedingly lower than they were known of late years, form no criterion for judging of the average value of this staple.

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* Sheealla.

TABLE II.

Assumed Cost and Selling Prices of Cane Goor, Khaur, Dullooa, and Sugar, the growth of Lower Bengal, in seasons of moderate crop and demand.

Quality.	Goor.		Khaur.		*Dullooa.		Sugar.		REMARKS.
	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	
1st Quality	2	2-8	†4-4	4-8	†7	7-8	†8	8-8 to 9	The Sugars refined by European process at the several factories in the vicinity of Calcutta, Dhoba Factory, and Tirhoot, are chiefly exported to England on the proprietor's account, and are seldom brought to the market for sale here.
2nd Ditto..	1-12	2	4	4-4	6-8	7	7-8	8 to 8-4	
3rd Ditto..	...	...	3-12	4	6	6-8	...	...	
4th Ditto..	...	...	3-8	3-12	5-8	9	...	...	

TABLE III.

Assumed Cost and Selling Price of Date Goor, Khaur, Dullooa, and Sugar, the growth of Lower Bengal, in seasons of moderate produce and demand.

Quality.	Goor.		Khaur.		Dullooa.		Sugar, called Gurputteeah.		REMARKS.
	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	
1st Quality	2	2-6	3-4	3-10	5-8	6	6	6-8 to 6-10	Date Sugar is used at the factories here and exported chiefly for compounding with Cane Sugar for refining purposes.
2nd Ditto..	1-12	2	3	3-4	5	5-4	5-12	6-4	
3rd Ditto..	1-10	1-14	2-14	3-2	4-12	5	5-8	6	
4th Ditto..	1-8	1-10	2-12	3	4-8	4-12	5-4	5-8	

The Calcutta export table shows that since the equalization of the duties in 1836, the export of sugar has risen from 6,17,360 maunds to 17,21,759 maunds in 1847-8, and the value from 51,38,460 rs. (513,846*l.*) to 1,6628,524 rs. (1,662,852*l.*) in 1847-8, and that the increased demand had raised the price of sugar in the Calcutta market from 8 rs. 5 a. 2 p. per maund to 9 rs. 10 a. 6½ p. per maund in 1847-8; being a difference of nearly 16 per cent. What effect the admission of slave-grown sugar into Great Britain may have upon the production and export of sugar from India remains to be seen. Table I. shows that a ton of sugar in Berar can be raised at the cost of 15*l.* 19*s.*, paying six times the ordinary assessment upon the land in the north-western provinces. The "Times" of the — August, 1849, has the following article on the relative cost of slave and free labour sugar:—

"In the old days of West Indian prosperity, when planters suffered no penalties save those of surfeits and extravagance, the cost of an able-bodied slave was, we believe, about 80*l.* At this figure he was expected to be some 25 years of age, and to have 10 years' honest work in him, and the number of his working days throughout the year was usually set at 310 out of the 365. This was not a very rigorous proportion, perhaps; but, then, for a proportion of this period he was worked at 'crop time' hours, and during the rest of the year a respectable 12 hours' labour was expected from him. This, to be sure, is no more than what an English labourer gives—from 6 to 6—allowing for meal-time in both cases, nor was the work always very laborious, but still the total amount performed was considerable. Its results were estimated by some such calculations as the following: —A good healthy slave would cultivate two acres annually, and an acre was ordinarily expected to produce about one ton of sugar and a due proportion of rum, that is, about 60 gallons to a ton. Or, putting the estimate in another form, the estate was considered to be doing pretty well if one hogshead of sugar of 17 cwt., with its proportion of rum, was produced for every head of slave stock upon it, reckoning old and young together. The cost, then, of an able-bodied slave would have stood thus against his earnings :—

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* Dullooa is a medium quality between Khaur and Sugar.

† These are prices which stand the importer at Calcutta, including transit charges and dryage.

	£	*s.*	*d.*
10 per cent. on his original price	8	0	0
Food, clothing, &c. (almost exactly that of a Russian soldier)	5	0	0
Depreciation and mortality on 10 years at 10 per cent.	8	0	0
Total annual cost	21	0	0
2 tons of sugar, say	50	0	0
120 gallons of rum	18	0	0
Total annual earnings	68	0	0
	21	0	0
Profit	47	0	0

"Now, when the experiment is made with 'free labour,' that is, as it should be always remembered, with such labour as an emancipated negro can be brought to give in a country where he has no natural or artificial wants to supply, the results found are these :—Say that he works the same number of days, 310, yet the average duration of his labour will certainly not be above 6 or 8 hours a-day, and the total average produce cannot be calculated at more than one-half that of the slave. So that if his wage—one shilling a-day—be compared with his work, the following will be the conclusion :—

	£	*s.*	*d.*
One ton of sugar	25	0	0
60 gallons of rum	9	0	0
	34	0	0
Deduct wages, 310 days	15	10	0
	18	10	0
Profit of slave over free labour	28	10	0

" These calculations indicate the true point of our planters' disabilities, viz., the deficiency of effective labour. The annual cost of a slave exceeds by more than 20 per cent. the wages of a free labourer, but so ineffective is the work of the latter that this advantage is soon neutralized, and the difference rises above the compensation of any moderate differential duty. The great object, then, if we would still retain sugar at its present reasonable rates, is to furnish our own plantations with better supplies of labour, and seek out, at the same time, fresh fields of action, where this indispensable auxiliary to success is readily procurable. We have now a statement before us containing proposals for establishing a sugar plantation in the British settlement of Malacca, the soil and climate of which are said to be eminently favourable to such culture, while the all-important commodity of labour is poured in abundantly by the Chinese immigrations from Singapore. The Straits' Government, it is stated, has granted liberal tracts of land rent-free for five years, for the purposes of the undertaking, and has expressed every desire to promote it by encouragement and aid. A Chinese 'contract labourer' is estimated to be worth, wage and work being compared together, fully 12*l.* 5*s.* per annum more than an able-bodied negro slave, and the calculations of the proprietors are intended to prove that the Brazilian and Cuban planters could be fairly undersold by the produce of our own possessions raised by free labour. We pronounce no opinion upon the soundness of these conclusions, but it is only too clear that if we do not by some means obviate what will soon become the monopoly of slaveholding sugar-growers, we shall expiate our injustice to our own colonists in a very appropriate but extremely unpleasant manner."

If these calculations be correct, a slave, at a cost of 21*l.* annually, produced two tons of sugar at 10*l.* 10*s.* per ton, besides molasses. Unless, therefore, the cost of production in India can be reduced, slave-grown sugar will affect the exports from India. But I cannot conceive that slave labour really can supersede the free labour of India; obtainable to any extent at 6*s.* per month, all charges included: and land to any extent at 2*s.* 6*d.* to 5*s.* an acre, of which land, in the sugar-growing district of Goruckpore alone, there are 1,599,586 acres, and in the whole of the north-western provinces above ten millions of cultivable acres at present unappropriated. In so favourable a light is Goruckpore viewed for sugar cultivation, that the following paragraph appears in the Government statement:—

"The cane cultivation and the manufacture of sugar are steadily increasing in the district of Goruckpore, for two reasons, which give it a decided advantage over the neighbouring districts:—one, the vast tract of waste and jungle-boory or forest lands brought under cultivation, and the cheap rates at which these are procurable there; and the other is that firewood is more abundant and much cheaper there than in the other sugar-growing districts, where all sorts of fuel are daily getting scarcer and dearer.

"Several of the manufacturers of sugar in the latter have already removed to Goruckpore, and it is understood that others will follow at no distant period."

On the whole, therefore, I would fain hope that the interests of millions of our subjects in India may not really be endangered by the reported low cost of the production of slave-sugar.